

Bob Roddy

Attached is what I believe would be a fair and equitable method to calculate the additional cost to the P/Chem Plant to treat the well water from Cerro's dewatering operation for the construction of the stormwater handling system.

Please review and we can discuss after the holidays when I return from my vacation.

J M. G. Lane
12/21/87

GROUND WATER DEWATERING TREATMENT COSTS

Flow From East Outfall

Nov. Total 1989= 4.885 mgd
Daily Average= 0.140 mgd

Sludge from East Outfall

Nov. Total 1989 = 26222 lb/mo
Daily Average = 749 lb/day

Dead Creek Overflow Sludge Concentration= 745 mg/l
(measured by P/Chem Plant)

P/Chem Plant Flow (See Attached)

Avg(11/1/89-11/26/89) = 4.928 mgd
Avg(11/27/89-12/10/89) = 5.235 mgd

Avg. Increase Flow = 0.307 mgd
Due to Wells

Feo = Flow from East Outfall
Fw = Flow From Wells
Fdc = Flow From Dead Creek

Seo = Sludge from East Outfall= 749 lb/day
Sw = Sludge From Wells
Sdc = Sludge From Dead Creek = 2775 lb/day
(0.447 mgd X 8.34 X 745 mg/l)

Feo + Fw = Fdc

Seo + Sw = Sdc

(0.140 + 0.307)= 0.447 mgd

Sw= 2775 - 749= 2026 lb/day additional Sludge

Flow Cost from Schillinger = \$382 /Million Gal.

Sludge Cost from Schillinger= \$0.30 /lb

AB Flow Cost from Schillinger= \$2,376 /mgd

AB Credit from Schillinger = \$950 /day

Cerro Additional Cost for Flow = (0.307 X \$382/MG) = \$117 /day

Cerro Additional Cost for Sludge=(2026 X \$0.30/lb) = \$608 /day

Cerro Additional Cost for AB Flow= Not included

AB Credit = Not included

Total Additional Charge = \$725 /day

Charge for 155 days (11/27/89-5/1/89) = \$112,375

Dead Creek
Overflow
Sludge
Production
mg/l

P/Chem Plant Flow

		11/1/89	4.7
		2	4.4
		3	4.3
		4	4.6
12/5/89	954	5	4.8
12/6/89	787	6	5.5
12/7/89	651	7	5.0
12/8/89	485	8	5.7
12/9/89	621	9	4.9
12/10/89	512	10	4.9
12/11/89	1002	11	5.3
12/12/89	862	12	5.0
12/13/89	831	13	6.2
		14	4.8
Average	745	15	
		16	4.5
		17	4.7
		18	4.3
		19	5.3
		20	5.4
		21	5.2
		22	4.6
		23	4.5
		24	4.9
		25	5.0
		26	4.7
		27	5.8
		28	4.5
		29	5.5
		30	6.3
		12/1/89	6.3
		2	4.4
		3	4.6
		4	5.6
		5	6.0
		6	5.4
		7	5.2
		8	5.4
		9	5.9
		10	5.6
		11	5.1
		12	4.7
		13	4.7
		14	4.5
		15	4.7
		16	4.8
		17	5.2
		18	5.1
		19	5.1

Avg(11/1/89-11/26/89) 4.928
Avg(11/27/89-12/19/89) 5.235

FROM:

BOB KODAY

RETURN
TO

C. J. GRINA ✓

SUBJECT

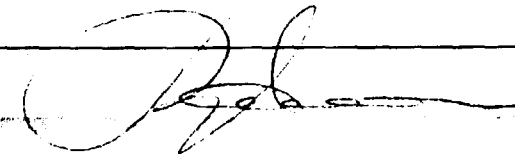
Groundwater Pumping - P/chem Pump (under) DATE 12/21/89

MESSAGE

The GRINA has prepared a suggested Billing
 scenario. I agree with it in principle, but if more
 accurate means for determining flow and storage
 concentration can be developed, and I hope they can,
 we reserve the right to utilize the "Better" numbers,
 may they be up or down.

RETURN TO →

SIGNED



REPLY

SIGNED

DATE / /

REDIFORM 4S 472
 POLY PAK (50 SETS) 4P 472

SEND PARTS 1 AND 3 INTACT -
 PART 3 WILL BE RETURNED WITH REPLY.

carbonless